



Documentation Update

Allen-Bradley
Fiber-Optic Converter Module
(Cat. No. 1771-AF)

Use this document with: Product Data, publication 1771-2.90 - March, 1986

Important: This document supplements the data sheet listed above. Keep this update with the data sheet and make the following corrections to it.

Corrections to 1771-2.90: The caption in figure 1 that reads: 6500 feet max. should read: 6500 feet maximum distance with continuous 100/140 um fiber-optic cable.

The specifications section should read:

Module Location

- Single slot in 1771 I/O chassis

Operating Temperature

- 0 - 60° C
- 32 - 140° F

Storage Temperature

- -40 - 85° C
- -40 - 185° F

Humidity - (Non-condensing)

- 5 - 95%

Power Supply Requirement

- +5 VDC @ 600mA from backplane

Configurations

- Point-to-point or star

Maximum Fiber Distance Between Module Pairs

- 6500 ft (2km) of continuous 100/140 um fiber-optic cable

Maximum Distance

- 43,000 ft combination of twinaxial and 100/140 um fiber-optic cable

Maximum Twinaxial Distance Between Module Pairs (Twinaxial Repeater)

- 10,000 ft of twinaxial cable per module pair (30,000 ft maximum)

Receiver Sensitivity (Optical)

- -24dBm at the end of a 1 meter 100/140 um fiber-optic cable

Optical Wavelength

- 820 nm

Fiber-optic Cable Connector Required

- SMA-905 connector

Recommended Connector Loss Guidelines

- 1dB or less per connector. This value has been included in the transmitter power (optical) specification.

Minimum Fiber-optic Cable Bandwidth Required

- 17MHz/km

Transmitter Power (Optical)

- -21.0 dBm at the end of a 1 meter 50/125 um fiber-optic cable
- -16.1 dBm at the end of a 1 meter 62.5/125 um fiber-optic cable
- -14.1 dBm at the end of a 1 meter 85/125 um fiber-optic cable
- -12.6 dBm at the end of a 1 meter 100/140 um fiber-optic cable
- -5.6 dBm at the end of a 1 meter 200/230 um fiber-optic cable

Cable Characteristics

Cable Diameter	Attenuation (dB loss/km)	Numerical Aperture (NA)	Length Guidelines (km)
50/125 um	4 dB/km	0.20 NA	0.50 km
62.5/125 um	4 dB/km	0.28 NA	1.75 km
85/125 um	4 dB/km	0.26 NA	2 km
100/140 um	5 dB/km	0.30 NA	2 km
200/230 um	6 dB/km	0.37 NA	2 km



ALLEN-BRADLEY
A ROCKWELL INTERNATIONAL COMPANY

Programmable Controller Division
747 Alpha Drive, Cleveland, Ohio 44143